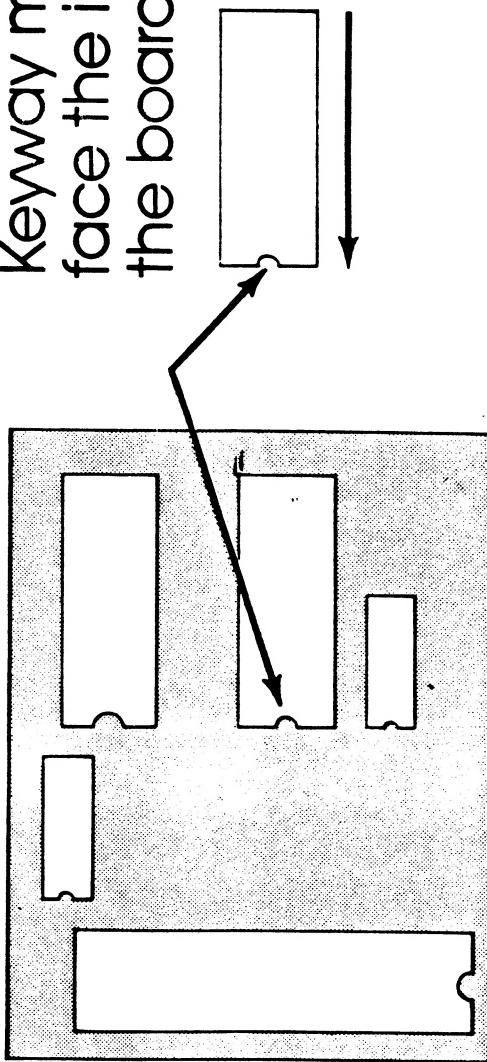


CAUTION!!

Make sure you replace E
prom correctly. If not, you
will blow the chip.

Keyway must
face the inside of
the board!!



Introduction

Thank-you for ordering the new 3.0 copy program and support software. The 3.0 contains many new and exciting features. We have developed a first: Our ultra-high speed sector copy program will boot and run many broken and unprotected disks in ultra-high speed. Many lightly protected commercial disks will also run in ultra-high speed after the high speed handler and program is loaded.

We now have a disk drive diagnostic program designed to check the status of your Drive. Many customers have also asked for a simple way to deprogram the Duplicator. Therefore we have included a create program in this package. When run it will create a disk to deprogram the Duplicator. Just boot it and in about 3/4 of a second your duplicator is deprogrammed.

Another revolutionary breakthrough is: we are now backing up the weak sector, e.g. Zorro and Never Ending Story.

We have taken this long to create our Module Maker which is designed to copy these unique custom formats. This Module Maker program will enable us to upgrade our revisions very quickly. We have planned revisions for as quickly as needed. Backing up the newest and most protected disks.

We have designed this software information package in 4 sections covering each of the 4 sides of the new 3.0 package. Please take the time to read it as it will answer 90% of your questions.

If you have further questions we have set up our technical lines 516-333-5504 or 516-333-5712 to answer all questions on Tuesdays and Thursdays 10:00AM-8:00PM EST. If you have any questions regarding an order or placing an order our order lines are 516-333-5805, 07, 08 which are available Mon-Fri from 8:30AM to 8:00PM EST and our evening and weekend order line is 516-333-5950 is available all other times.

SIDE 1 Copy Program and RPM Program

The Duplicator copy program will be an auto boot disk. Make sure your basic cartridge is removed or on newer XL or XE computers hold down the OPTION key while turning on your computer. To boot this disk (copy program will work with basic present but basic still takes extra memory causing copies to take more time and more disk swaps). A copyguarded disk can be backed up between one to three disks swaps depending on the copyguard used and the amount of blank tracks.

GETTING STARTED

Our software is so user friendly that no instructions are really needed. Just a few things will be explained now. You can use this copy program with one or two drives.

IMPORTANT

Make sure your copy program says Rev 3.0 or higher. A lower Rev will not back-up all the software that it should. Just turn on your computer without Basic.

NUMBER of RETRIES

When you see this just hit RETURN and the program will default to the normal setting of 8. You will not see this but the copy program will always try 8 times on a track then proceed to the next track. Only change or experiment with this setting if the disk you are trying to copy is uncopiable due to weak writing or was made on a bad drive such as bad write alignment problem. In other words, an unsalvageable disk maybe saved by increasing the retries. Although this will be a very rare occurrence.

Press "E" to Exit

Use this function to leave the copy program. Also another way to remove the Duplicator and place the drive in the normal mod. (If you make a copy or find an original disk that won't boot then force the drive in the normal mod) by answering YES.

Anytime the copy program is booted it fills the drive buffer causing all disks to boot slow. The drive can be forced to fast mod if you answer NO and so desire a fast disk boot. You could also turn off the drive anytime and when you turn it back on it will always default to fast mod.

Reboot System?

A handy way to boot the disk you just copied. No need to turn off and on the computer. This will be a cold start so hold down the OPTION key if needed to remove Basic.

RPM PROGRAM

The RPM program is simple and also needs little explanation. Set your RPM program on the mark it is very critical in copying 19 or more sector formats.

1. Boot any Dos (with Basic)
2. Put in Side 1 of the Duplicator
You will see the ready prompt
3. Type in RUN "D:M* This will bring up the RPM program.

Note: If you have 2 Duplicators and you are checking the RPM of Drive 2. We recommend you change this drive to Drive 1 for the running of this program. After you have your correct RPM's then change it back to Drive 2.

To Exit the RPM program just hit the START key.

Remember 60 HZ U.S. and North America RPM settings are 288 for standard RPM and 255 for Slo mod settings.
50 HZ (Europe and many other countries RPM settings are approximately 345 for standard RPM and 310 for Slo mod settings).

SIDE 2 Duplicator Support System

- A. BASIC FORMATTING
- B. SKEW
- C. CREATE SLO
- D. MAKE DISK
- E. FORMAT FIX

SIDE 2 of the Copy Disk

You will find a user friendly true Double Density Dos of side 2 of this disk. You may use this Dos or any Double Density Dos to convert your files or program to Double Density.

You will not be able to convert a copyguarded disk into Double Density. Follow our formatting instructions very closely. If you use this Dos formatting it is very simple but can be tricky. Your drive can be easily fooled as to what density it will format in. To call out our Dos just boot side 2 with BASIC removed.

Formatting Disks in Double Density

To format a disk in Double Density with the Dos we provide:

- a) Boot the Dos
- b) Remove the Dos master disk
- c) Insert the disk to format
- d) Use 'P' to set density
- e) Then use 'I' to format the disk

Note: If you choose Double Density you will see that there are 707 sectors formatted. This is 707 Double Density sectors. Do not be confused thinking this formatted in single density. Try writing something to the disk and you will see it took half the number of sectors that single density would have taken.

SKEW

Certain disks are protected by a form of protection called track skew alignment. This is the relationship of one track to the next on your disk. We have provided you with a binary file program which will enable you to back-up these skew protected disks.

The reason we did not make this part of our regular copy program is because making a back-up copy of a skew protected disk is a much slower process than other forms of protection.

Many times there is absolutely no way of knowing if a disk is skewed or not. We cannot inform you of every disk that might be skewed.

A General Guide may be the Following:

- We have found most of the skewed disks are from SSI, good examples are Mechbrigade and Nam , and from a company called Micropose F15 Strike Eagle and Decision in the Dessert are more examples of this

Unfortunately the heavily skewed disks by Electronic Arts are not being copied by the 3.0. We do intend to have the 4.0 copy these disks. (check your modules to see if the copy capabilities are there).

If you try to copy a particular program with the 3.0 duplicator copy program and you are unsuccessfull in running the copy you made, there are 3 reasons it won't run:

1. You must deprogram the Duplicator to boot and run it.
2. It's skewed and therefore you need to run the skew copy program and instead of the main 3.0 copy program, to copy it.
3. Check your modules to see if its there. It goes beyond the 3.0 copy capabilities of the Duplicator at the present time. Our software revisions will handle this in the future.

CAUTION: Make sure you load skew and not skew OBJ
Skew OBJ is fully automatic and done inside the program

Hit L
Then hit S*
Do not hit S*.*

Do not remove the Master diskette until it asks you if you want to exit to Dos. Then hit no and it will ask you to put in your source disk. Do not be alarmed if it sounds like the drive is formatting your source disk because its not. It is just reading the disk.

Sometimes a form of protection is encountered that the skew program cannot handle. It will try to read the disk forever. The only way to exit this undefined state is to power down. This is an indication of the skew copy programs inability to copy this program.

While using the Skew program during Disk Swaps the busy light may remain on. Just ignore this and follow your menu prompts for disk swaps.

DISK TEST: We have supplied a diagnostic disk test program to ascertain whether your drive is functioning properly. Many times a customer tells us the Duplicator is not functioning. We find that when an enhancement is put in a drive it magnifies many inherent defects in the drive that would ordinarily not appear with the original chips still in the drive. This program tests your disk drive. It will tell you if the data you are writing is good. It will tell you if your head is out of alignment and basically will reflect the general condition of your disk drive. An occassional Read Error could be caused by a bad disk. We suggest you repeat the test with another disk if this occurs.

Load the DISK TEST from binary file.

Caution: Use a blank disk to test it. This program will format this test disk. DO NOT USE YOUR ORIGINAL. Press return and it will test the drive.

If your drive is functioning normally you will see "Test Complete". If something is wrong with your drive it will show ERRORS.

CREATE SLO: Creates the deprogram disk for you. So you don't have to go through a complicated procedure for deprogramming the Duplicator (a necessity for booting many copyguarded disks). We have provided this create program so you just have to insert the disk, boot it, and immediately your Duplicator is deprogrammed. It says nothing and you will just see a square cursor at the top left corner of your screen.

The following steps will help you create your own Duplicator Deprogrammer:

1. Load create slo from binary file from Dos on side 2 of the 3.0 package.
2. When the program appears follow the directions on the screen.
3. When it's completed it says simply DISK MADE!
4. Now just boot the disk you have made. It takes about 3/4 of a second and your drive is now Duplicator Inactive. Just turn your drive off and on and the Duplicator is back.

Use Atari Dos 2.0s

Once a disk has been formatted in density and half or Double Density you may not be able to reformat that disk with Dos 2.0s we suggest you always use the new Dos 2.5. This Dos is better equipped to handle the 1050 Drive.

If you still want to use the 2.0s we have provided a fix for the problem.

FORMAT FIX- If you have a problem formatting a Double Density disk with Atari 2.0s you should use this program. The problem usually is an error 139. It may occur occassionally when you have a disk that has been formatted in Double Density and now you want to format in Single Density.

Load the format fix (during this process and don't turn off your drive). Then boot your 2.0s or any Single Density Dos that you are having the problem with and format that problem disk. When you are done formatting this problem disk turn your drive off and on again. This will default the drive to its normal condition.

SIDE 3 Custom Format Modules

IMPORTANT: This Module Disk is in Double Density.

There are many unique custom formats appearing on the market today. We have developed a very sophisticated Module Maker System utility here at Duplicating Technologies. This program helps us to create these modules making it possible to back-up disks that were never possible before. The weak sector is an example of software that has never been able to be backed up, such as Never Ending Story and Zorro just to name a few.

Our Module Maker System can enable us to make these modules quickly and efficiently.

The Modules available on Rev 3.0 are as follows:

01 Fight Night	02 Zorro
03 Home Accountant	04 Kennedy Approach
05 Silent Service	06 Goonies
07 Hardball	08 Apshai Trilogy
09 Never Ending Story	10 Sargon III

How to use the Modules:

1. After you have made a copy of your program with the Duplicator's Copy program (side 1 of the 3.0 package).
2. Insert your 3.0 module. Reboot holding down the option key. After the module menu appears select the number of the copy you have just made.
3. The module menu will appear and follow the prompts. VOILA! You now have a Completed copy!

No need to go back to single density you are already in Single Density mode. What you may have to do is deprogram the Duplicator before booting the copy you have just completed.

Try booting it first (without deprogramming) there is a good chance deprogramming the Duplicator will not be necessary.

IMPORTANT NOTES: The copies you make do not have to run on a Duplicator Enhanced drive. They will run on any Atari drive.

If you have a problem booting a Double Density disk; boot a Single Density disk first, then you will be able to boot the Double Density disk after that. If you turn the drive off you may have to repeat this procedure. Certain drives may expect to see a Single Density disk first time booted.

READ READ READ READ

SIDE 4 - THE ULTRA-HIGH SPEED CAPABILITIES

IT IS VERY IMPORTANT TO UNDERSTAND THE ULTRA-HIGH SPEED PROBLEMS WE HAVE ENCOUNTERED IN THE PAST TWO WEEKS OF TESTING.

ATARI COMPUTERS USE A 9600 BAUD RATE IN THE TRANSFER OF DATA. OUR OPERATING SYSTEM HAS PUSHED THAT BAUD RATE TO THE LIMIT. WE HAVE DESIGNED OUR OPERATING SYSTEM'S BAUD RATE AT 52,000. ALMOST AN INCREDIBLE 5X THE NORMAL HIGH SPEED TRANSFER RATE.

IN DOING THIS WE HAVE CAUSED OURSELVES SOME PROBLEMS. WE HAVE FOUND THAT UNLESS A 1050 DRIVE IS IN PERFECT SHAPE AND FINELY TUNED IT WILL NOT WORK. A NEW DRIVE DOES NOT CONSTITUTE PERFECT OR FINE TUNED. THIS ULTRA-HIGH SPEED WILL NOT WORK IN ALL DRIVES.

IN ONE OF OUR FUTURE REVISIONS WE WILL BE SLOWING DOWN THIS BAUD RATE SO THE DRIVES THAT ARE NOT PERFECTLY CALIBRATED WILL ALSO RUN.

THIS DOES NOT EFFECT NORMAL DUPLICATOR HIGH SPEED PERFORMANCE IN ANY WAY.

**SIDE 4 ULTRA HIGH SPEED HANDLER
and SECTOR COPY PROGRAM**

Ultra Speed Handler

We have found the ultra high speed handler to have a multitude of uses.

1. The most important and the most revolutionary is the ultra-high speed handler can run and boot unprotected disks or non-copyguarded disks and broken versions of programs in our ultra-high speed. (our competition can only binary load in high speed). No one has been able to boot or run these programs. We have also found many commercially copyguarded disks, with light protection, can also boot and run in ultra-high speed (these programs are usually limited to those programs which will run without the Duplicator being deprogrammed). This feature is still experimental. We still do not know what disks will run or not run at this time.
2. The ultra-high speed handler is a binary file called SPEED. This file can be copied on to a 2.5 Dos diskette and renamed AUTO RUN. SYS. Now when you boot this disk the high speed handler will automatically run! Now you can experiment on what disks will boot in ultra-high speed.
3. You can also binary load the SPEED file from Dos 2.5
4. Advanced users feel free to experiment with Ultra-High Speed. You can even copy the SPEED file into the Ram disk of the XE Computer onto Disk # 8.
5. Another very important feature, is if your program has an accompanying module on Side 3, it can be run and booted in our ultra-high speed.

To Run the High Speed Handler:

- A. Boot side 4 of the 3.0 package. When the menu appears:
- B. Hit key #1. This will load the Ultra-High Speed handler. When the screen reads HIGH SPEED ON:
- C. Insert ANY DISK you want to boot in your drive and hit return.

VERY IMPORTANT NOTE:

The High Speed Handler does not like disks with Atari 2.0 Dos on them. The disk will not boot. If you have programs you want to boot in Ultra-High speed just write Dos 2.5 back to them.

To Run a Basic Program in Ultra-High Speed:

Use the following procedure:

1. Boot the High Speed Disk (Side 4) with basic installed.
2. When High Speed Handler Menu comes up hit #1. When the High Speed ON prompt comes up hit RETURN with the Master (Side 4 diskette) still in your drive.
3. When the High Speed Menu re-appears exit to Dos.
4. Hit B for Basic
5. When ready appears run your program(s) like you would normally.

CAUTIONS: Some Dos's have trouble reading the directory in ultra-high speed. If you encounter this problem hit the BREAK key once or twice. Chances are this will solve the problem.

If your drive is deprogrammed the Ultra Speed will not work. Turn your drive off and on and this will default to the Duplicator present status and the Ultra-High Speed will now work.

High Speed Sector Copy Program

At this time our Ultra-High speed sector copy program will only work on the XL or XE series computers. We are presently working on a sector copier for the 800 series computer.

1. Our sector copy program has many excellent features. One of the most important is that this program will go through all errors. It will not crash therefore you won't have to be bothered running the program all over again. When you encounter an error just hit START and your program will continue. It's indestructable and will not be intimidated by these bad sectors.
2. This program is designed to copy a non-copyguarded, unprotected or broken disk. Although as stated previously it is copying and running some ultra-high speed commercially protected software.
3. More features include the WRITE mode being much faster than our competition. (we have timed it)
4. If you make a mistake when entering your information you don't have to Start All Over. Just hit the Break key and Hit START again.

4

To Use the Ultra Speed with the Sector Copy Program

Use the following procedure:

1. Boot the high speed disk (side 4) and hold down the OPTION key.
2. When the high speed handler comes up hit #1 key.
3. When the high speed handler reads ON hit RETURN.

IMPORTANT: Sometimes the drive will pause 10-14 seconds before the high speed kicks in. THIS IS NORMAL.

4. When main program appears hit #2. This will bring up the sector copy program.

To Use The Sector Copy Program

We feel this program is self explanatory. After each question is answered hit RETURN to go to the next parameter change. If you continue hitting RETURN it will set these parameters automatically. NOTE: We do suggest one manual change: When you reach WRITE BLANK SECTORS: change this to NO. It's a waste of copy time to write blank sectors.

After the last parameter change hit RETURN. You are now ready to copy. Hit START to begin.

If a mistake is made entering anyone of the parameters (you do not have to start everything over). Simply hit the BREAK key and then the START key. The break key will abort your mistake and the START key will allow you to begin the entry procedure again.

CAUTION: Do not hit system reset this will reboot the system.